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ABSTRACT

A Total Quality Management team was formed at Oregon State University to improve the quality of student information publications. The team studied the critical process in detail, identified "customers" of student information publications, defined information to be solicited from the customers, interviewed them, and gathered data for improving the process. The interview asked for comments on existing publications, what an ideal format for student information publications would be, and how to measure progress toward that goal. Twenty-three customers were identified and interviewed. The interviews resulted in an issue statement to improve the quality of annual student publications by broadening the scope of the content and enhancing the format. Included are 12 references. (JB)

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USING A TOTAL QUALITY MANAGEMENT TEAM TO IMPROVE STUDENT INFORMATION PUBLICATIONS

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for Management Research, Policy Analysis, and Planning

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Jean Endo
Chair and Editor
Forum Publications
Editorial Advisory Committee

USING A TOTAL QUALITY MANAGEMENT TEAM TO IMPROVE STUDENT INFORMATION PUBLICATIONS

Abstract

Total Quality Management (TQM) as a management practice has become increasingly popular with institutions of higher education in recent years. Approaches for implementing TQM are varied, but the primary goal is the same -- increasing customer satisfaction through improvements in quality of service and/or products. A TQM team was formed to improve the quality of student information publications at a major research university. This paper describes how a TQM team approach works in an applied situation for a typical institutional research function. Results from customer interviews for improving the quality of the student information publications are also discussed.

INTRODUCTION

In recent years, Total Quality Management (TQM) as a management practice has been adapted by more and more institutions of higher education (Bogue and Saunders, 1992; Seymour, 1992; Sheer and Teeter, 1991; Johnson, 1991). TQM is based on organizational models developed by Deming (1986), Juran (1988), Crosby (1979, 1984, 1984, 1986) and others. Although successful methods for implementation have been well established in the business sector, TQM in higher education is an evolving process and institutions have only recently begun to adapt the methodology to meet a multiplicity of needs. A major element of TQM is the team approach to problem solving. Seymour (1992) describes the importance of using teams:

> Teams and teamwork are at the heart of strategic quality management; indeed, they are an essential part of the delivery system. A college or university committed to pursuing quality needs to understand what its critical processes are. The administration must bring the people who work both in and on those processes together . . . . The next step is to empower the team by giving up top-down administrative control. Leadership in the new management paradigm *coordinates* the actions of people to help them pursue quality, it doesn't try to *control* quality in through policies and procedures. Teams are further empowered through education. . . . Finally, the revolution of teamwork must be allowed to infect the institution by implementing solutions, bragging about successes, and rewarding improvement wherever it happens. (p. 110)

Seymour (1992) also describes the relevance for empowering employees through TQM: "People know when you are investing in them. They don't make as many mistakes and when they do, they know how to fix them. Ideas for improvement

bubble to the surface when people understand the extended process, the expectations, the connections, and their responsibility for causing quality" (p. 107).

PURPOSE

The purpose of this paper is to describe the team process for implementing TQM as adapted by Oregon State University (OSU). Additionally, the paper examines a TQM team that was formed to improve a process common to many institutional researchers, i.e., producing quality student information publications that are used and valued by customers. Results from the OSU Student Information Dissemination Team are considered in generalized terms with a focus on customer satisfaction.

METHODOLOGY

Teams of Quality

For the past two and one-half years, Oregon State University has been implementing Total Quality Management in an effort to provide better services and to better meet the needs of customers (Coate, 1991; Coate, 1992). Each team studies a critical process in detail, interviews customers, and gathers data for improving the critical process with the goal of improving the process (Oregon State University Training Manual, 1992). A critical process is defined as a flow of work involving more than one person and having an important link to the mission of the organization. A three-day training program has been designed which introduces individuals to the fundamental principles and tools necessary for total quality management implementation. These individuals participate on a team and utilize the skills learned to make improvements in a critical process associated with their job.

When a critical process is identified as needing improvement and a sponsor decides that forming a team would be beneficial to address the problem, the sponsor (usually an office director or supervisor) identifies a team leader and together they choose the team members. A TQM facilitator who is willing to serve on the team is also chosen. Once the team has been formed, a series of structured meetings that progress step by step are conducted. The following are descriptions of the team participants and their assigned roles in a typical TQM team:

Team Participants

Team Sponsor -- the highest level manager of the organizational unit with responsibility for the critical process. The sponsor's role is to ensure the team has a good understanding of the mission and vision of top management.

Team Leader -- also a team member whose role it is to prepare and conduct the meetings, assign activities to the team members, provide direction and assess progress. The team leader provides group representation to the sponsor.

Team Facilitator -- owner of the problem solving model. The facilitator helps the team use the various TQM tools, assists in communication problems, and acts as a guide to reach decisions by consensus on important issues.

Team Member -- owner of the process. It is important for team members to attend and actively participate in all meetings; their experiences and knowledge are vital to the success of the team. Members participate in all phases of process improvement.

To date, over 300 people have been trained in the team approach to TQM at Oregon State University and there are currently 77 TQM teams. The teams represent many service areas of the university including: the physical plant, human resources, the computer center, and the budget and planning office. Members of the team are comprised of all major owners of the process. There must be a time commitment from all team participants and a willingness to address the problem openly. The teams of quality are essentially study groups where problems are carefully analyzed and solutions are thoughtfully planned. The roles of the team members are known and well-defined; expectations are clear. Below are listed characteristics that are representative of productive TQM teams:

Characteristics of Productive TQM Teams

- Atmosphere is informal
- Discussions are goal-directed
- Team objectives are understood and accepted
- Team members listen to each other
- Disagreement is openly discussed
- Decisions are by consensus
- Management is included in decisions

10 Step TQM Process

Each team follows the problem-solving model shown in Figure 1. From surveying the customers to selecting the next issue, this ten step process is used by each team to improve its critical process. The focus is on fixing the process, not fixing the people. The various TQM tools provided in each step serve as guideposts to systematically arrive at the cause of the problem(s) and at the same time offer realistic, timely solutions. At each step, the directions leading to team consensus can be followed precisely or can be modified to adhere to a particular situation in the critical process. The following section describes how the student information dissemination team has been following these steps to improve its critical process.

RESULTS

Student Information Dissemination Team

One of the critical processes assigned to the institutional research unit at Oregon State University is to "gather and disseminate information about the university." Several publications are produced annually that provide information to its customers. With the implementation of a new student information software system (SCT/Banner) and the decision to discontinue publication of the annual graduation and admission summaries (the Admission's and Registrar's Annual Reports), an opportunity to revise these publications arose. At the same time, the institutional research unit wished to review two of its current annual student information publications: the Graduation Summary and the Enrollment Summary. A TQM team was formed to address these concerns and improve the quality of student information publications.

Total Quality Management Team Process

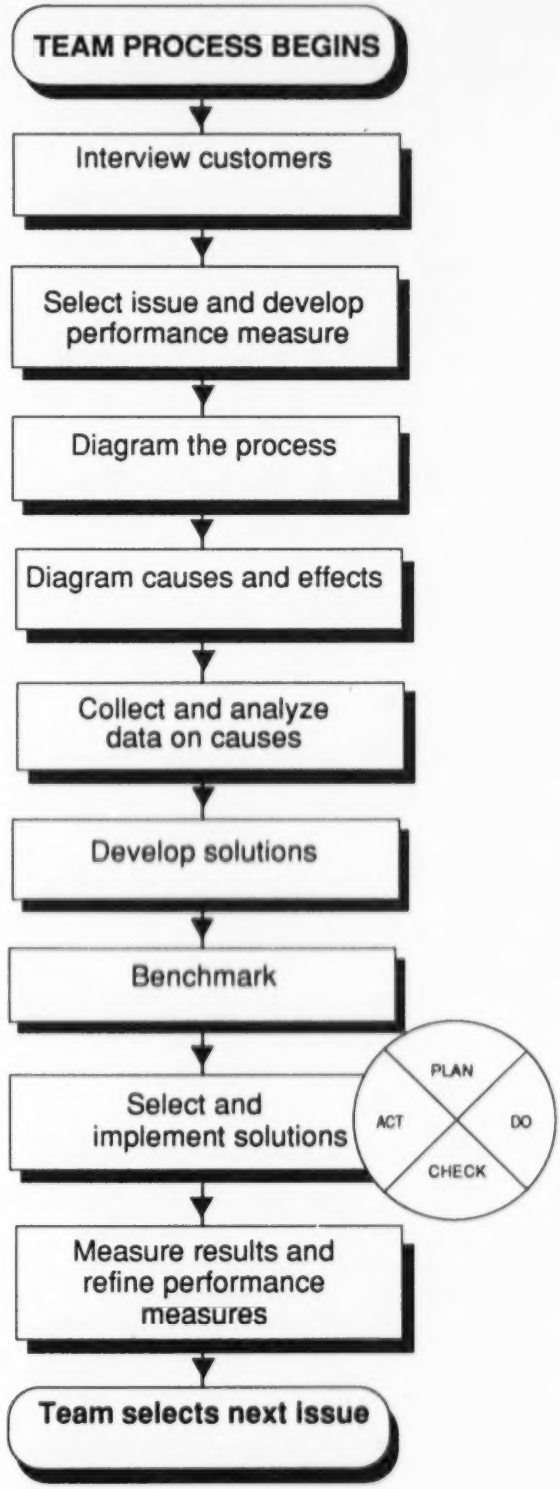

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Figure 1.

The critical process of "the gathering and disseminating of information about the university" was identified by the team sponsor, the Director of the Office of Budgets and Planning. Although the critical process covered all types of information about the university, the team chose to focus only on student information and its dissemination. The team was formed and called itself the Student Information Dissemination (SID) Team.

In forming the SID Team, three people were identified as being "owners of the process" (all three worked in the institutional research unit). One of these individuals volunteered to serve as the team leader. A facilitator from outside the institutional research unit was chosen by the Quality Manager to work with the team. (The team sponsor, facilitator, leader and one team member had previously attended the three day TQM training session that was offered on the campus). The team met weekly with one of its first objectives to identify and interview its customers.

Customer Interviews

Much discussion was generated in an effort to identify our customers. The following definition was finally adopted: "people who use information to make or affect internal management decisions." Twenty-three customers were ultimately identified and interviewed. Two team members interviewed each customer for approximately one hour. Prior to the interview the customer received a memorandum with background information and a copy of the four current student information publications. The memorandum also listed the questions they would be asked to discuss during the interview:

1) What are your comments about the existing student information publications.

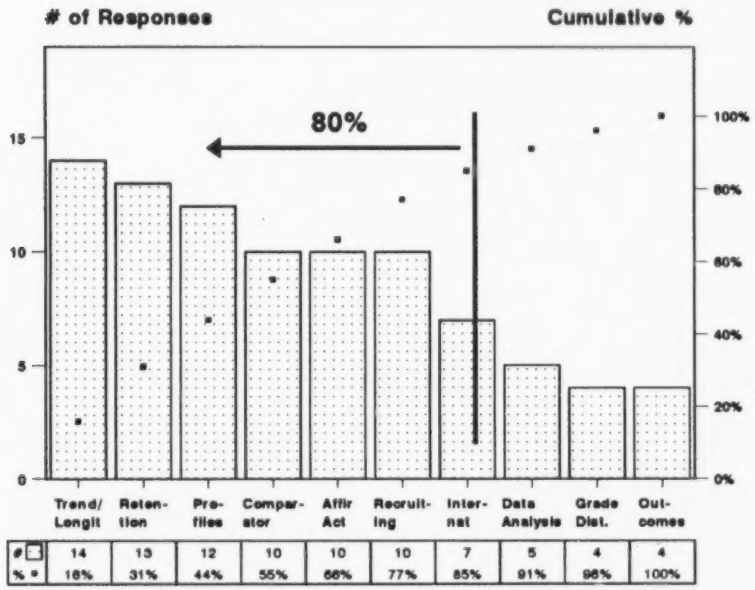
2) Ideally, what would student information publications be like if we met your expectations?

3) How will you measure our progress toward that goal?

Although the responses varied widely depending upon an individual's interests and need for student information, several common themes emerged from the interviews. A primary concern was the need to have a document that was "user friendly." The customers told us that they were very busy and a document in which the information can be quickly assimilated was desirable. Visual presentation of the data was considered to be quite important and graphs were preferable to tables in most instances. Surprisingly, some interviewees told us that they had never looked at the Admission's and Registrar's Reports although they had been receiving them annually, in some cases, for many years.

The customer "likes" and "dislikes" as they pertained to the publications were listed and grouped into two major areas of concern: issues related to format and issues related to content. Figure 2 shows these results in a Pareto chart. In the *format* area, the major issues that accounted for 80% of the responses were: 1) need to include bullet highlights (for a quick summary of the most important information); 2) distribution (who were receiving copies); and, 3) the need to provide more documentation about the source of the information. The major issues of concern related to *content* included providing more information in the following areas: 1) trend/longitudinal data; 2) retention; 3) student profiles; 4) comparative information

Content Responses



Format Responses

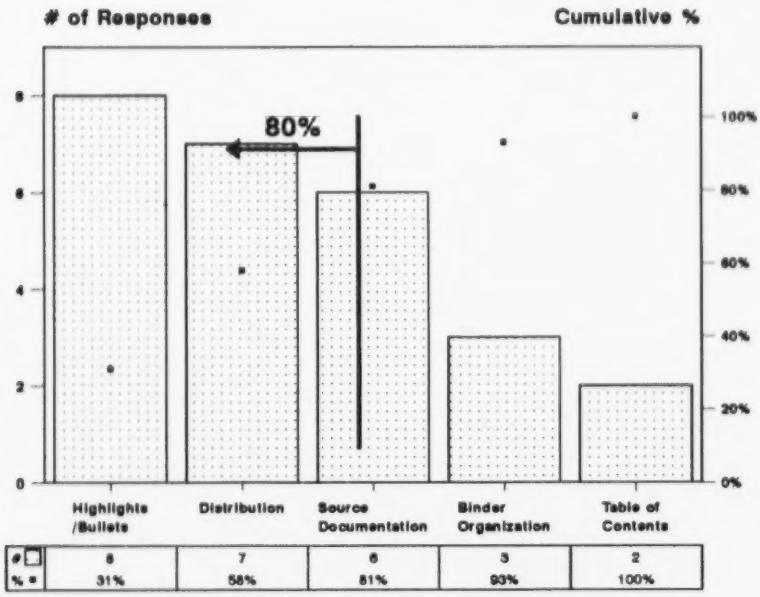


Figure 2. Student Information Dissemination: TQM Customer Survey Results.

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(from peer institutions); 5) minority information; 6) recruitment data; and, 7) international student information.

The issue statement that evolved from these interviews was to "improve the quality of annual student publications by broadening the scope of the contents and enhancing the format." In the next step, a flow chart was developed which diagrammed the process currently used to generate the information required to produce the student information publications. The flow chart was used to identify major activities and decision points along with important inputs and outputs.

This particular critical process, because of its qualitative nature, did not lend itself to the preparation of a "process performance chart" (to look at changes in the process over time). The performance measures identified for the team process were: 1) to incorporate as many of the customer requests as feasible into the publications, and to quantify the percentage of the total customer requests that are actually incorporated, and 2) to contact the 23 customers interviewed at a later date to assess the degree of satisfaction they have with the new student information publications.

The next step was to prepare a diagram of the causes and effects. This was done using the TQM tool of a fish bone diagram (see Figure 3). Root causes in the areas of material, methods, equipment and people were identified that created difficulties in completing the process. Two critical causes were identified: 1) the need for additional computer programs to be written; and 2) customers needs are not clearly understood. The effect of these root causes resulted in the development of a problem statement: "the content and format of the annual Admissions' and Registrar's Reports are not adequate for customer needs."

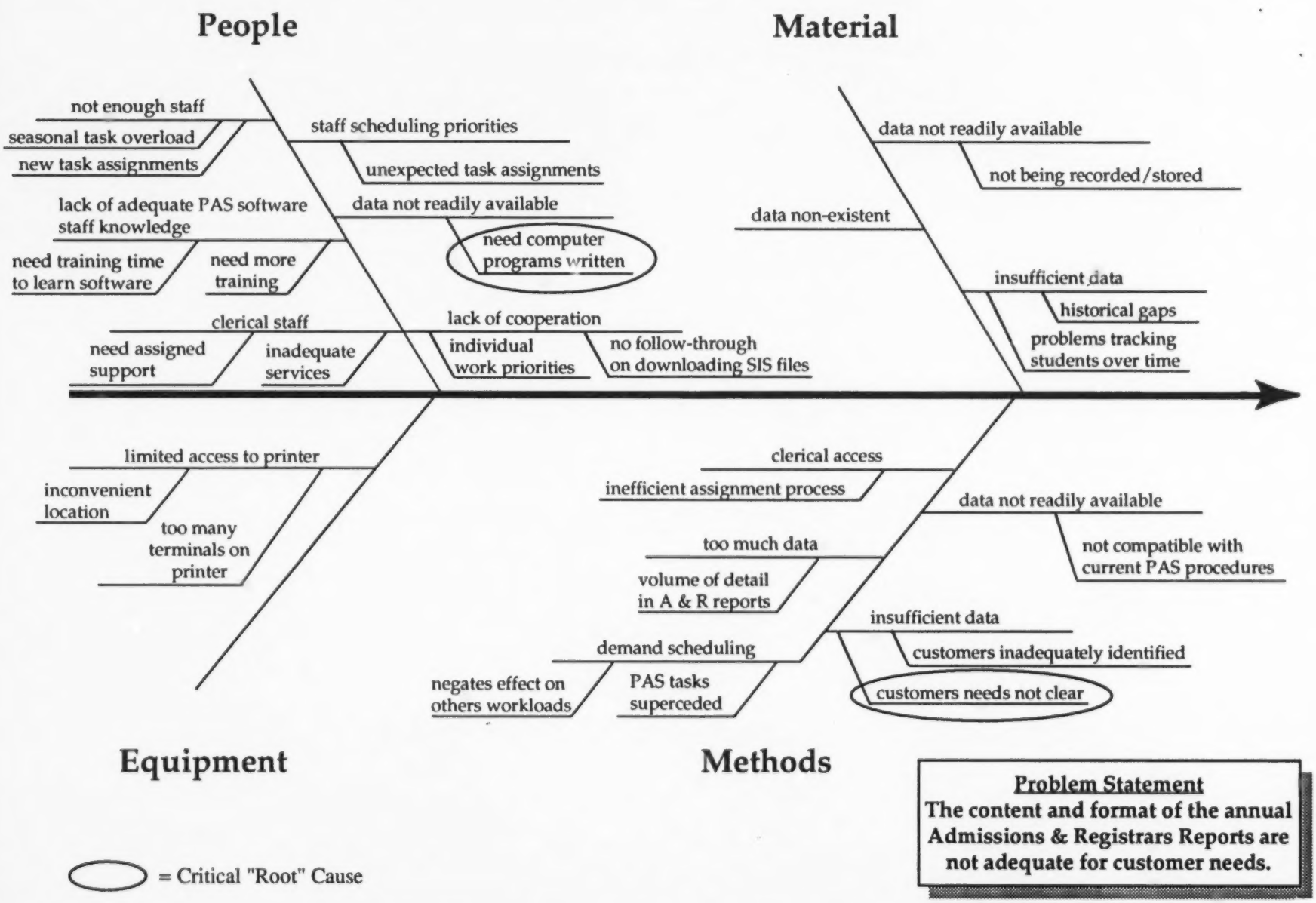

Figure 3. Identification of the SID Causes and Effects (Ishikawa Fishbone Diagram).

Currently, we are in the process of collecting and analyzing data on the causes. Some solutions have already been incorporated into our products, such as highlights with bullets, a summary "at-a-glance" on the front page, additional information on minority students, an index, and three hole punching of the document (so that the document can be easily stored in a notebook). Other improvements are being planned for future editions. The benchmarking step has been used to compare our products and services with other institutions.

IMPLICATIONS

Besides improved quality of the publications, improved communication is one of the benefits of using a TQM team approach. Team members not only have a better understanding of each individual's job after working closely on the team, they also have a better understanding of the customers' needs and concerns. For their part, customers were found to be very expressive in their comments and appeared to appreciate being asked for input. We found out how we are meeting our customers' needs and how we are not. Student information had previously been provided for more than 20 years in summary, tabular form on an annual basis, and no one had ever taken the time to ask individuals if they actually used what they had been receiving. As it turned out, many found the visual presentation of the tables contained in Registrar's and Admission's Reports unappealing and in some instances questioned the usefulness of the data provided.

Given the current economic conditions and the reduction of budgets in many institutions of higher education, it is helpful know who your customers are and their specific needs and information requirements. Publications are expensive and targeting

the needs of your audience becomes increasingly important. Also, there is no need to publish if there is no audience.

The SID Team continues to meet -- teams never die, they rest for awhile and then revisit the critical process and determine how the process can be further improved. A benefit of TQM is that quality is relentlessly and continuously improved, and ultimately exceeds the needs of customers.

REFERENCES

Bogue, E.G., and Saunders, R.L. (1992). The evidence for quality. San Francisco: Jossey-Bass Publishers.

Coate, L.E. (1991). Implementing Total Quality Management in a University Setting. In (Sheer, L.A. and Teeter, D.J. Eds.), Total Quality Management in Higher Education, New Directions for Institutional Research. 71, 27-31.

Coate, L.E. (1992). Total Quality Management at Oregon State University. Corvallis, Oregon: Oregon State University.

Crosby, P.B. (1979). Quality is free, the art of making quality certain. New York: McGraw-Hill.

Crosby, P.B. (1984). Quality without tears. New York: McGraw-Hill.

Crosby, P.B. (1986). Running things - the art of making things happen. New York: McGraw-Hill.

Crosby, P.B. (1988). The eternally successful organization. New York: McGraw-Hill.

Deming, W.E. (1986). Out of the crisis. Cambridge: MIT Center for Advanced Engineering Study.

Juran, J.M. (1988). Juran on planning for quality. New York: Free Press.

Oregon State University, Department of Human Resources (1992). Facilitator and Team Leader Training. Corvallis, Oregon: Oregon State University.

Seymour, D.T. (1992). Causing Quality in Higher Education. New York: American Council on Higher Education and MacMillan Publishing Company.

Sheer, L.A. and Teeter, D.J. (Eds.) (1991). Total Quality Management in Higher Education. New Directions for Institutional Research. 71.